

Appl. No. 10/583,450
Amendment dated: June 9, 2008
Reply to OA of: March 7, 2008

REMARKS

Applicant has amended the specification and claims to more particularly define the invention taking into consideration the outstanding Official Action. The specification has been amended at page 9 to provide the heading Brief Description of the Drawings thereby obviating the objection to the specification on page 2. Accordingly, this objection should be withdrawn.

Claims 7, 8 and 11 have been amended in view of the rejection under 35 U.S.C. 112, second paragraph in the Official Action. Claim 7 has been amended to provide a proper antecedent basis by deleting the word "the" and inserting "a". The last word in claim 8 should be foil and the claim has been so corrected to obviate this aspect of the rejection. Finally, claim 11 has been amended to clarify that the roller has been coated prior to the lamination and the coating of the second roller with rubber is not part of the method.

In addition, claims 13 and 14 have been added to the application to further specific aspects of the invention as fully supported by the specification. Entry of the amendment is in order and withdrawal of the objection to the specification and the rejection under 35 U.S.C. 112, second paragraph is also most respectfully requested.

The Examiner's comments with respect to claim language on page 3 of the Official Action has been considered and Applicant agrees therewith.

The rejection of claims 1-6 under 35 USC 102(b) as being anticipated by JP 63-224944 A has been carefully considered but is most respectfully traversed. It is noted that the action relies upon the Derwent abstract and a preliminary **oral translation of JP 63-224944 A because an English language translation was not available at the time of this action**. It would be appreciated if an actual written translation could be provided so that the Official Action and rejection does not rely upon an oral translation which is not of record, if the rejection is pursued.

A copy of the translation received by the undersigned attorney is submitted herewith.

JP 63-224944 A discloses a process for producing a multilayered film wherein:
A. An ethylene-ethyl acrylate-maleic anhydride terpolymer (5) is laminated on a fluorine

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resin (7) via an ethylene-glycidyl methacrylate-vinyl acetate terpolymer (6);

B. The three resins are simultaneously extruded according to a co-extrusion method.

JP 63-224944 A solves the problem of obtaining sufficient adhesion between a moisture absorption layer (being EEM resin 5) and a sealing layer (7) by means of an adhesion layer (being EGV resin 6) in order to obtain a high moisture barrier film. This is used rather than using a specific surface treatment, which is prior art (cf. page 2) and does not provide sufficient adhesion. It is the disclosure of JP 63-224944 A that co-extruding the three films simultaneously under specific production conditions does obtain the desired adhesion strength between the layers.

To this end the three layers (5-7) are joined together in a die (1) and co-extruded (cf. page 4) whereby an apparatus capable of co-extrusion with a temperature difference to the layers, such as a vane die, may be used (cf. page 5).

In one embodiment, a film with a thickness of 200 microns is obtained, having a PCTFE layer of 150 microns thick.

Claim 1 of the present application, however, discloses a film which comprises:

- I. a layer of polyolefin, a jointing layer and a layer of PCTFE,
- II. whereby the PCTFE layer has a minimum thickness of 10 microns and
- III. whereby the film is fabricated by extrusion lamination.

Applicant most respectfully submits that claim 1 of the present application discloses three important differences with respect to JP 63-224944 A making the claim subject matter unobvious. First, the film according to the present invention contains a layer (2) of polyolefin in general whereas JP 63-224944 A specifically contains a layer (5) of an ethylene-ethyl acrylate-maleic anhydride terpolymer (EEM resin)

Second, the present invention discloses a film which contains a jointing layer (4) in general, which may be an ethylene glycidyl methacrylate co-polymer (cf. page 7; 11. 16-22), whereas JP 63-224944 A specifies that the jointing layer (6) is an ethylene-glycidyl methacrylate-vinyl acetate terpolymer (EGV resin).

The advantage of the present invention is that a larger range of polyolefins and a larger range of substances for the jointing layers can be applied for a packaging film.

This is possible because of the third important difference of the present invention with respect to JP 63-224944 A, namely that the film is manufactured by extrusion

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lamination, rather than simultaneous co-extrusion as is the case for JP 63-224944 A. A substantial advantage of extrusion lamination is that the difference in viscosity between the different layers (2-4) does not have to be taken into account as these can be extruded at different moments (cf. page 8; 11. 26-31). Accordingly, it is most respectfully requested that this rejection be withdrawn.

The rejection of claims 1-4 under 35 USC 102(b) as being anticipated by Tsai has been carefully considered but is most respectfully traversed in view of the amendments to the claims and the following comments.

Tsai, on the other hand, discloses a multilayer fluoropolymer film which comprises:

- A. at least one fluoropolymer layer
- B. at least one thermoplastic layer and
- C. an intermediate adhesive layer which comprises a blend of an olefin-containing polymer and a blend of a styrene-ethylene-butylene-styrene block co-polymer.

It is the essence of Tsai to provide a relatively small amount of styrene-containing rubber in the intermediate adhesive layer in order to increase the adhesion of the layers. However, it is clearly stated that a film according to Tsai may be manufactured according to any conventional technique, preferably by co-extrusion, alternatively by lamination (cf. Col. 3, 11. 58-64).

Moreover, the presently claimed invention aims at manufacturing a film according to extrusion lamination (cf. characteristic III above), which is not a conventional technique for multilayered films, which offers the advantage that any thickness for a PCTFE layer may be used (cf. page 8, 11. 12-24).

That is, the jointing layer of a film according to the present invention does not necessarily comprise styrene-containing rubber. Applicant therefore is of the opinion that characteristic III of claim 1 of the present application is new with respect to Tsai. Accordingly, it is most respectfully requested that this rejection be withdrawn.

The rejection of claims 7-12 under 35 USC 103(a) as being unpatentable over Tsai in view of Annegret has been carefully considered but is most respectfully traversed in view of the amendments to the claims and the following comments.

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Applicant agrees with the Examiner in that figures 2-10 of Annegret illustrate various embodiments for adhering first and second substrates with a (hot melt) adhesive whereby the adhesive may be extruded and subsequently a laminate is compressed between rollers (§30) . The adhesive may be extruded on a first layer (cf. figures 2 and 3) or may be extruded between a foil guided on a first roller and a foil guided on a second roller (cf. figure 4 of Annegret which corresponds to figure 3 of the present application).

The rollers may be heated (cf. §33 of Annegret) and other parameters, such as the speed of the rollers and the distance and inclination of the "coating device" (implying also the extrusion apparatus) to the substrate may be varied according to the circumstances.

The Examiner is of the opinion that one skilled in the art would be motivated to use the method of Annegret to obtain a film according to Tsai.

Applicant most respectfully submits that a person skilled in the art who wishes to obtain a better adhesion between layers of a multilayer packaging film, as is the objective of the present application and of Tsai, would not directly be stimulated to apply extrusion lamination. Instead, we surmise that said person would be stimulated to look for different compositions of the adhesive layer in order to obtain better adhesive qualities.

Said person may think of altering the manufacturing parameters but Annegret does not directly disclose a general method of applying coextrusion lamination for a film according to characteristic I of claim 1 of the present application.

Furthermore, nowhere in Annegret it is disclosed that altering the manufacturing parameters would lead to better adhesion between the layers. Annegret only aims at avoiding streaking and striation problems for coatings on films (cf. § 6) , either by an inline or offline configuration (cf. § 7), obtaining film-to-film laminations which do not require the use of reactive adhesives (cf. § 8) and providing improved coating methods (cf. § 9).

Finally, should said person eventually think of altering the manufacturing parameters, it is' clear from both Annegret and the present application that altering said parameters would be a process of much trial and error and that in either case a

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research process is required in order to find the optimal manufacturing parameters, which in our opinion constitutes an inventive step over JP 63-224944 A and Annegret.

It is the essence of the present invention that the material properties of the joining layer are carefully selected in function of:

- the purpose for which the film is designed (cf. page 11, 11. 16-20),
- the desired thickness of the film and/or the individual layers (of. page 10, 11. 9-13),
- the material of the polyolefin layer with which the adhesive layer (4) is jointed to form a two—layered foil (12) (cf. page 12, 11. 21-29) whereby the temperatures of the rollers subsequently play a major role in the bonding of said foil to the PCTFE foil (11) in the lamination process (cf. page 13, 11. 4-10). Accordingly, it is most respectfully requested that this rejection be withdrawn.

In view of the above comments and further amendments to the specification and claims, favorable reconsideration and allowance of all the claims now present in the application are most respectfully requested.

Respectfully submitted,
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